

THOUGHTS ON AAM ROUTES (AKA CORRIDORS)

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BOEING NEXT



Assumptions & Guiding Principles

- Maintain Safety
- Minimize Impact on Legacy NAS Users
 - No new equipage and no limits on access
- Minimize Potential Changes to NAS Operations
 - Controller workload & significant ATM automation changes
- ANSP Maintains Control Over the Airspace
- Operator Responsible for Aircraft Separation
 - Assisted by Automation and Information from a 3rd Party Service Provider

Precedence

- Helicopter routes
- Delegated separation
- VFR Corridors
- Special Flight Rules Area (Part 93)

Advanced Air Mobility

AAM Routes – Aircraft operating on AAM routes follow specific procedures and do not receive ATC separation services while on the route

BOEING NEXT AAM Routes or UAM Corridors

Predefined AAM Routes designed to minimize encounters with existing traffic

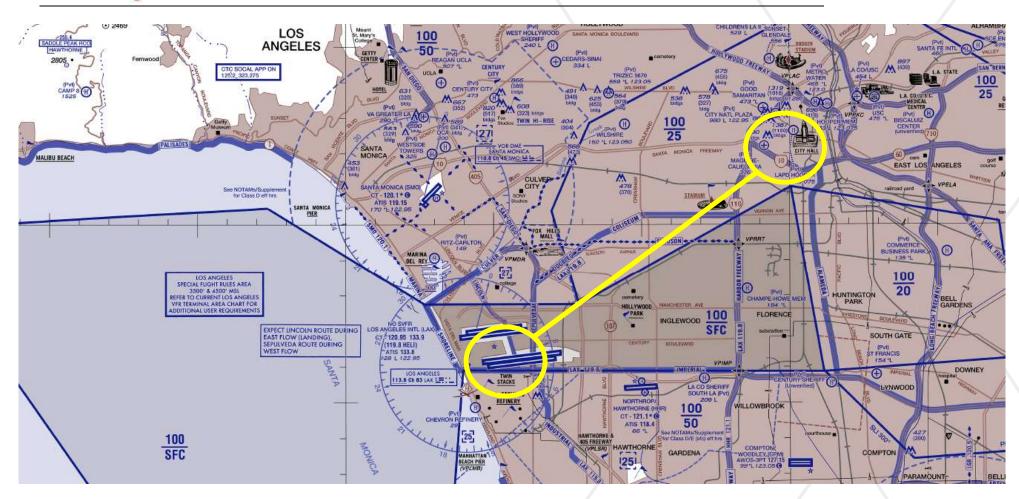
All participating aircraft on these routes will operating under Cooperative Conflict Management

(aka Community-Based Rules) procedures.

AAM Route Characteristics

- Static but used in a flexible fashion
- FAA sets criteria or decides which routes can be used
- Design Considerations: Airspace Class, Noise Abatement Requirements, Departure/Approach Flows, SIDS/STARS, Final Approach Paths/Glide Slopes.
- Consist of a series of lat/long waypoints and have altitude floors and ceilings; Routes may be one-way or two-way (with altitude stratifications for direction)
- Containment parameters similar to PBN
- Not exclusive airspace Follow procedures and meet performance requirements
- Periodically redefined as operational demand changes
- Airspace and procedure design tool similar to TARGETS
- Charted and made available to other airspace users

BOEING NEXT Illustrative Example Used to Analyze Initial Feasibility – Los Angeles

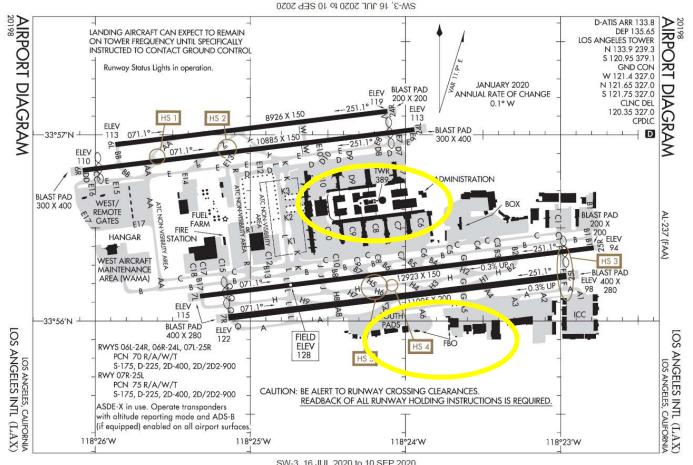


BOEING NEXT Factors to Consider

Factors

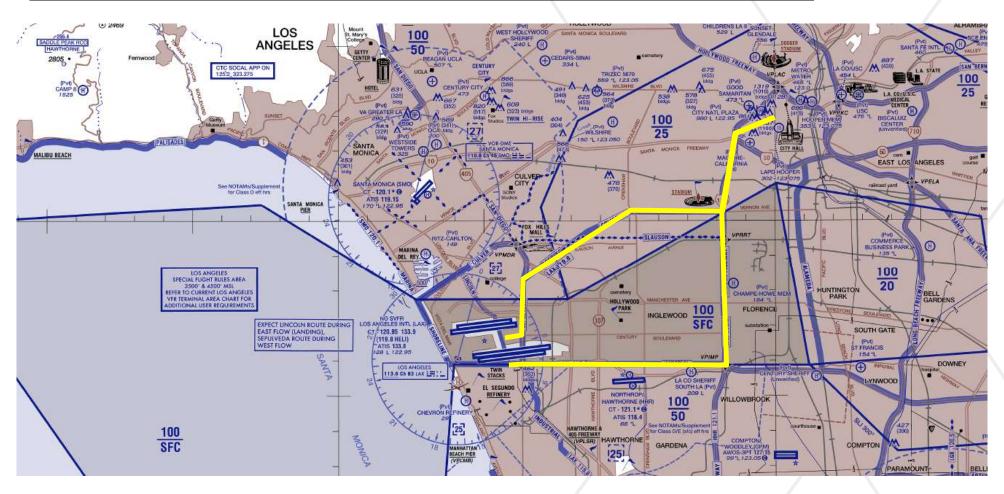
- Airspace Viability
- Transfer Time
- Number of Mode Changes

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SW-3, 16 JUL 2020 to 10 SEP 2020

BOEING NEXT Illustrative Example – Los Angeles



BOEING NEXT Open Questions

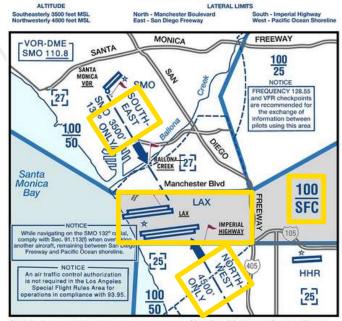
- 1. Should AAM routes use existing Helicopter routes (at least in the early implementation phases)?
 - Should traditional rotor craft be required to participate in AAM procedures (aka CCM or CBR)?
- 2. As AAM operational tempo increases, should AAM routes be designed to parallel and/or align to helicopter routes?
- 3. Should AAM routes include emergency landing locations?
- 4. Is it feasible to define AAM routes in all metro areas?
- 5. Should AAM routes extend beyond the Mode C veil or should aircraft transition to either IFR or VFR procedures?
- 6. Can one update to Part 93 apply to routes in multiple locations?
- 7. What specific AAM Procedures (aka CBR, Cooperative Conflict Management) would ensure the safety of operations on the AAM Routes?



BOEING NEXT Los Angeles Special Flight Rules Area

Part 93

- Allows VFR aircraft to fly over LAX airport in Class B Airspace, without ATC clearance
 - No need to talk to LAX Tower when following the procedures
 - 3500ft SE or 4500ft NW



The following rules shall be adhered to when utilizing the LOS ANGELES SPECIAL FLIGHT RULES AREA: The flight must be conducted under VFR and only when operation may be conducted in compliance with Sec. 91.155.

The aircraft must be equipped as specified in Sec. 91.215 replying on code 1201 prior to entering and while operating in this area.

The pilot shall have a current Los Angeles Terminal Area Chart in the aircraft.

The pilot shall operate on the Santa Monica very high frequency omni-directional radio range (VOR) 132° radial.

Aircraft navigating in a southeasterly direction shall be in level flight at 3500 feet MSL.

Indicated airspeed shall not exceed 140 knots.

TURBOJET AIRCRAFT ARE PROHIBITED FROM VFR OPERATIONS IN THIS AREA.